the permeability of a subsurface formation by introducing into the formation a gel which is not water soluble, wherein the gel is made by first polymerizing a water soluble polymer and then cross linking the water soluble polymer.

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The method disclosed by Kato fails to explicitly state that the resin prepared is a water insoluble gel. However, Applicant, based on the expression in Kato that the produced resin is "in an aqueous gel state," infers that the Kato resin is a water insoluble gel.

## Claims 1, 2 and 6 are not anticipated and are in condition for allowance.

With regard to claims 1, 2 and 6, Kato does not disclose a method of making a water soluble polymer. Kato does not disclose combining an acrylic acid compound (such as acrylic acid), with a reactant selected from the group consisting of a divalent metal salt of the acrylic acid compound (such as magnesium acrylate), a monovalent metal salt of the acrylic acid compound (such as an alkali metal acrylate) and mixtures thereof to form a polymer precursor. Kato does not disclose combining the precursor with a polymerization initiator (such as free radical initiator) to form the water soluble polymer.

In contrast Kato specifically discloses making a mixture of sodium acrylate and magnesium acrylate and reacting the mixture in the presence of a divinylic containing monomer and a free radical initiator to form the water insoluble gel.

It is clear that Kato does not include acrylic acid in his polymerization mixture and Applicant does not include a divinylic containing monomer in his polymerization mixture.

## Claims 3, 4, 5, 7 and 8 are not anticipated and are in condition for allowance.

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With regard to claims 3, 4, 5, 7 and 8, Kato does not disclose combining his resin with a cross linking agent (such as a trivalent metal) to form the water <u>insoluble</u> gel.

In contrast, Applicant claims the step of combining his water soluble polymer with a cross linking agent (such as a trivalent metal) to form the water <u>insoluble</u> gel.

## Claims 12 and 13 are not anticipated and are in condition for allowance

With regard to claims 12 and 13, Kato does not disclose a method of making a water soluble polymer by mixing an acrylic acid compound (such as acrylic acid), with a material selected from the group consisting of a divalent metal compound (such as magnesium hydroxide), a monovalent metal compound (such as sodium hydroxide) and mixtures thereof to form a polymer precursor. Kato does not disclose combining the precursor with a polymerization initiator (such as free radical initiator) to form the water soluble polymer.

## Claims 14 and 15 are not anticipated and are in condition for allowance.

With regard to claims 14 and 15, Kato does not disclose a method of adjusting the permeability of a subsurface formation by any means, including introducing a water insoluble gel into the formation. Kato does not disclose making the gel by: combining acrylic acid with a reactant selected from the group consisting of an alkaline earth metal salt of acrylic acid, an alkali metal salt of acrylic acid and mixtures thereof to form a polymer precursor; combining the precursor with a polymerization initiator (such as free

12	radical initiator) to form a water soluble polymer, and combining the polymer with a
73	cross linking agent to form the gel.
74	Claim 16 is not anticipated and is in condition for allowance.
75	With regard to claim 16, Kato does not disclose a method of adjusting the
76	permeability of a subsurface formation by any means including introducing a water
. 77	insoluble gel into the formation. Kato does not disclose making the gel by: mixing
78	acrylic acid with a material selected from the group consisting of magnesium hydroxide,
79	sodium hydroxide and mixtures thereof to form a polymer precursor; combining the
80	precursor with a polymerization initiator (such as free radical initiator) to form a water
81	soluble polymer; and combining the polymer with a cross linking agent to form the gel.
82	This application is in condition for allowance. Reconsideration and allowance
83	are requested.
84	Respectfully submitted,
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91	CERTIFICATE OF MAILING
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